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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/683,596 | 10/10/2003 | Joseph Patino | CE11270JI111 | 1007 |

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| EXAMINER | |
|---|---|
| SHARMA, SUJATHA R | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2618 | |

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/683,596 | PATINO ET AL. | |
| | Examiner | Art Unit | |
| | Sujatha Sharma | 2618 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *10 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/10/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6-9,16,17 and 20 rejected under 35 U.S.C. 102(b) as being anticipated by Ford [US 5,118,309].

Regarding claim 1, Ford discloses radio accessories interface connector. Ford further discloses

- an external push-to-talk user input device for accepting user input from a user and providing electrical user input signals representing whether the user has activated the external push-to-talk user input device for controlling a push-to-talk function of a wireless communications device; See col. 3, lines 8-18, col. 4, lines 48-60 and Fig. 3
- an external audio transducer for coupling audio with a user, the external audio transducer converting between the audio and corresponding electrical audio signals being coupled with the wireless communications device; see col. 3, lines 8-37. col. 4, lines 48-60
- a connector interface comprising an electrical contact that is electrically coupled with the external push-to-talk user input device and the external audio transducer for coupling the electrical audio signals between the electrical contact and the external audio transducer and contemporaneously coupling the electrical user input signals between the electrical contact and the external push-to-talk user input device. See col. 2, lines 32-60, col. 3, line 8 – col. 4, line 20

Regarding claim 2, Ford further discloses

- a PTT detector circuit; and at least one of an audio output circuit for outputting electrical audio signals to the electrical contact and an audio input circuit for inputting electrical audio signals from the electrical contact. See col. 1, lines 61-65, col. 3, lines 61-67 and col. 4, lines 6-60

Regarding claim 3, Ford further discloses a method wherein the electrical contact for contemporaneously electrically coupling:

- the electrical user input signals between the external push-to-talk user input device and the PTT detector circuit for detecting in the wireless communication device whether the user has activated the external push-to-talk user input device; see col. 4, lines 48-60
- the electrical audio signals between the external audio transducer and the at least one of an audio output circuit and an audio input circuit. see col. 4, lines 48-60

Regarding claim 6, Ford discloses a method wherein the audio output circuit comprises an audio signal amplifier and the external audio transducer constitutes a speaker. See fig. 5, col. 4, lines 21-31.

Regarding claim 7 Ford further discloses a method wherein the audio output circuit comprises an audio signal amplifier and the external audio transducer constitutes a speaker, and wherein the audio input circuit comprises a microphone audio signal amplifier and the external audio transducer constitutes a microphone. See fig. 5, col. 4, lines 20-60

Regarding claim 8, Ford discloses a method wherein the audio output circuit comprises an audio signal amplifier and the external audio transducer constitutes one of a plurality of audio speakers, the outputted electrical audio signals being coupled via the electrical contact from the audio signal amplifier to the one of a plurality of audio speakers. See col. 3, line 61 – col. 4, line 60

Regarding claim 9, Ford discloses a method wherein the electrical audio signals are substantially AC signals, and wherein the electrical user input signals are substantially DC signals, the AC signals and the DC signals being contemporaneously coupled with the electrical contact. See col. 4, lines 20-60.

Regarding claim 16, Ford discloses a wireless communication device comprising:

·a connector interface comprising an electrical contact for electrically coupling electrical user input signals with an external push-to-talk user input device and contemporaneously electrically coupling electrical audio signals with an external audio transducer; See col. 2, lines 32-60, col. 3, line 8 – col. 4, line 20

·a PTT detector circuit for detecting the electrical user input signals from the external push-to-talk user input device; See col. 1, lines 61-65, col. 3, lines 61-67 and col. 4, lines 6-60

· at least one of an audio output circuit for outputting electrical audio signals to the external audio transducer and an audio input circuit for inputting electrical audio signals from the external audio transducer, the electrical contact for electrically coupling the electrical user input signals and the electrical audio signals. See col. 3, lines 8-37. col. 4, lines 48-60

Regarding claim 17, Ford discloses a method wherein the electrical audio signals are substantially AC signals, and wherein the electrical user input signals are substantially DC signals, the AC signals and the DC signals being contemporaneously coupled via the electrical contact. See col. 4, lines 20-60.

Regarding claim 20 Ford further discloses a method wherein the audio output circuit comprises an audio signal amplifier and the external audio transducer constitutes a speaker, and wherein the audio input circuit comprises a microphone audio signal amplifier and the external audio transducer constitutes a microphone. See fig. 5, col. 4, lines 20-60

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 4,5,10-14,18,19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford [US 5,118,309] in view of Kaario [US 6,563,424]

Regarding claims 4,5 Ford discloses all the limitations as claimed. However, he does not disclose a method wherein the external push-to-talk user input device and the external audio transducer constitute a stereo audio headset with PTT user input function.

Kaario, in the same field of endeavor, teaches a method wherein the external push-to-talk user input device and the external audio transducer constitutes a stereo audio headset with PTT user input function. See col.6, lines 15-45.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Kaario to Ford for enhanced and quality reception of audio signals.

Regarding claim 10, Ford discloses radio accessories interface connector. Ford further discloses

- an external push-to-talk user input device for accepting user input from a user and providing electrical user input signals representing whether the user has activated the external push-to-talk user input device for controlling a push-to-talk function of a wireless communications device; See col. 3, lines 8-18, col. 4, lines 48-60 and Fig. 3
- an external audio transducer for coupling audio with a user, the external audio transducer converting between the audio and corresponding electrical audio signals being coupled with the wireless communications device; see col. 3, lines 8-37. col. 4, lines 48-60
- a connector interface comprising an electrical contact that is electrically coupled with the external push-to-talk user input device and the external audio transducer for coupling the electrical audio signals between the electrical contact and the external audio transducer and contemporaneously coupling the electrical user input signals between the electrical contact and the external push-to-talk user input device. See col. 2, lines 32-60, col. 3, line 8 – col. 4, line 20

However, he does not disclose a method wherein the external push-to-talk user input device and the external audio transducer constitute a stereo audio headset with PTT user input function. Kaario, in the same field of endeavor, teaches a method wherein the external push-to-talk user input device and the external audio transducer constitutes a stereo audio headset with PTT user input function. See col.6, lines 15-45.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Kaario to Ford for enhanced and quality reception of audio signals.

Regarding claims 11,19 Ford discloses a method wherein the audio output circuit comprises an audio signal amplifier and the external audio transducer constitutes one of a plurality of audio speakers, the outputted electrical audio signals being coupled via the electrical contact from the audio signal amplifier to the one of a plurality of audio speakers. See col. 3, line 61 – col. 4, line 60

Regarding claim 12, Ford discloses a method wherein the electrical audio signals are substantially AC signals, and wherein the electrical user input signals are substantially DC signals, the AC signals and the DC signals being contemporaneously coupled with the electrical contact. See col. 4, lines 20-60.

Regarding claim 13, Ford further discloses a method wherein the electrical contact for contemporaneously electrically coupling:

·the electrical user input signals between the external push-to-talk user input device and the PTT detector circuit for detecting in the wireless communication device whether the user has activated the external push-to-talk user input device; see col. 4, lines 48-60

·the electrical audio signals between the external audio transducer and the at least one of an audio output circuit and an audio input circuit. see col. 4, lines 48-60

Regarding claims 14, Kaario teaches a method wherein the connector interface constitutes a four contact stereo audio plug and the electrical contact is one contact of the four contact stereo audio plug. See col.6, lines 15-45.

Regarding claim 18,Ford discloses all the limitations as claimed. However, he does not disclose a method wherein the external push-to-talk user input device and the external audio transducer constitute a stereo audio headset with PTT user input function.

Kaario, in the same field of endeavor, teaches a method wherein the external push-to-talk user input device and the external audio transducer constitutes a stereo audio headset with PTT user input function. Kaario further teaches a method wherein the connector interface constitutes a four contact stereo audio plug and the electrical contact is one contact of the four contact stereo audio plug. See col.6, lines 15-45.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Kaario to Ford for enhanced and quality reception of audio signals.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ford [US 5,118,309] and Kaario [US 6,563,424] in view of Pottala [US 5,881,370].

Regarding claim 15, Ford and Kaario disclose a connector interface that includes sufficient electrical contacts for the stereo audio headset audio communication between a user and the wireless communication device, and the stereo audio headset contemporaneously providing to the user control of a push-to-talk function in the wireless communications device.

However, they fail to disclose a method wherein the audio communication between the audio headset and the wireless communication device is a full duplex connection.

Pottala, in the same field of endeavor, teaches a method wherein the audio communication between the audio headset and the wireless communication device is a full duplex connection. See col. 2, lines 35-57

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Pottala to modified Ford to provide the user with an improved radio communication control accessory.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ganton [US 2004/0160993] System and method for multiplexing digital and analog signals using a single electrical connector

Yang [US 2005/0036644] Adapter for connecting a mobile phone stereo earphone-microphone set to a stereo system

Cern [US 5,815,298] System and method for wirelessly communicating a sound signal

Dieringer [U 5,790,947] Radio and public address interface kit

Matouk [US 5,625,684] Active noise suppression system for telephone handsets and method

Duncan [US 5,825,873] Interface for providing call control for a headset attached to a telephone providing call control for a headset attached to a telephone

Davies [US 7,058,384] Radio system with universal communication interface

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 571-272-7886. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sujatha Sharma
September 26, 2006

MATTHEW ANDERSON
SUPERVISORY PATENT EXAMINER